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PTO-1652 (8/99)

Disclosure Document Deposit Request

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Inventor(s): VICTOR M. VILLABOIS

Title of Invention: APPARATUS AND BUSINESS METHOD FOR TRADING AND TRANSMITTING STORED ENERGY

Enclosed is a disclosure of the above-titled invention consisting of 12 sheets of description and 17 sheets of drawings. A check or money order in the amount of \$10.00 is enclosed to cover the fee (37 CFR 1.21(c)).

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FIG 1.0

SEP. 1st, 2003

ELECTRIC HOME UTILITY POWER SAVER

COMPLEMENTER/SUPPLEMENTER OR BYPASS TO CONTROL OTHER LOADS IN HOME

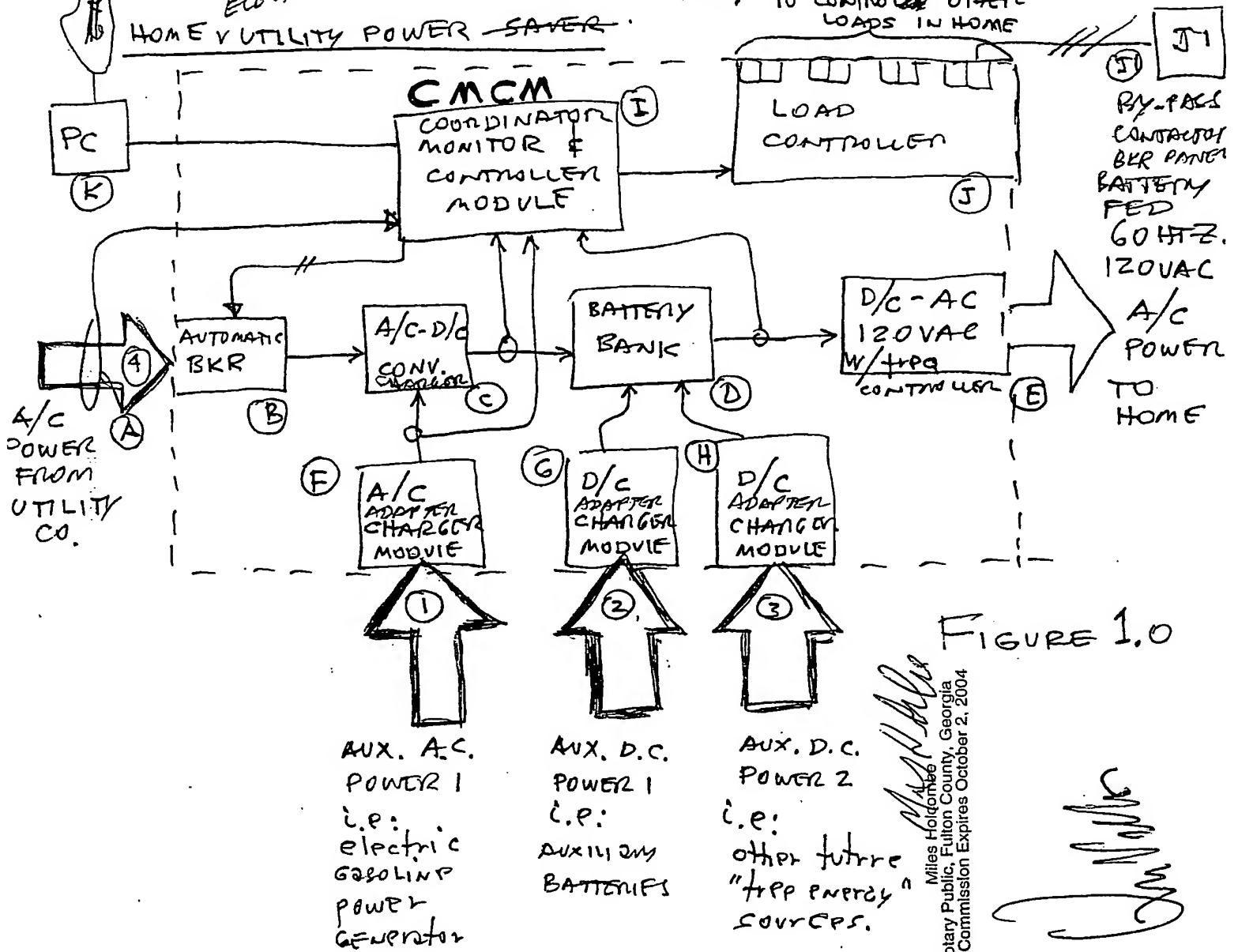


FIGURE 1.0

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DESCRIPTIONS

- (A) - INCOMING POWER FROM UTILITY CO. INTO HOME OR FACILITY
- (B) - COMPUTER CONTROLLED AUTOMATIC BREAKER
- (C) - A/C - D/C CONVERTER CHARGER
- (D) - BATTERY BANK
- (E) - D/C - A/C 120VAC 60HTZ. CONVERTER (220/SINGLE PHASE 460/THIRD PHASE FED FROM BATTERY)
- (F) - AUXILIARY A/C CHARGER RECEIVER MODULE #1
- (G) - AUXILIARY D/C CHARGER RECEIVER MODULE #1
- (H) - AUXILIARY D/C CHARGER RECEIVER MODULE #2
- (I) - POWER COORDINATOR MONITOR AND CONTROLLER MODULE.
- (J) & (J1) - LOAD SHEDDING CONTROLLER OR LOAD BY-PASSER CONTROL

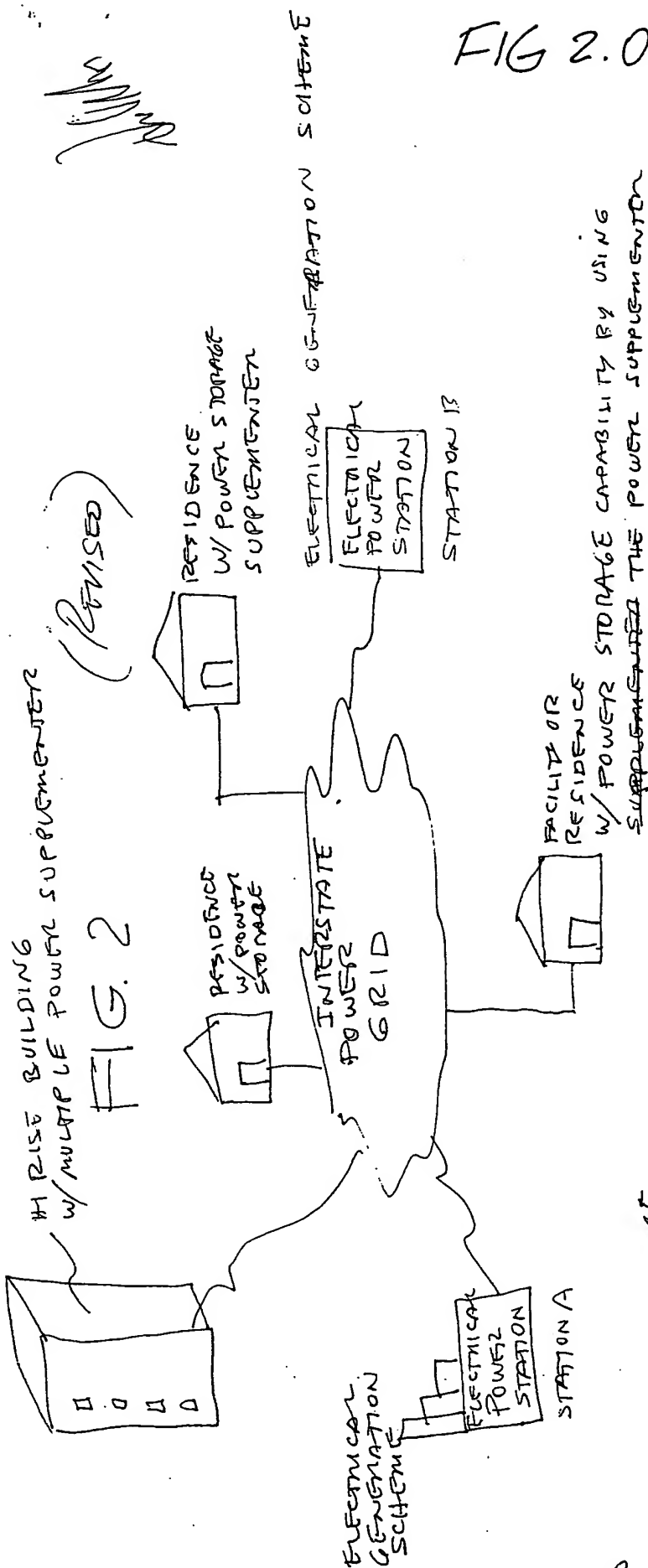


FIG 2.0

MAIN CONCEPT - IN ORDER TO MAXIMIZE AND OPTIMIZED POWER COSTS AND REDUCE IN TERMS OF PRICES CHANGED ~~PER~~ PER KILOWATT HOUR, POWER ~~FROM~~ REMOTE ~~GENERATION STATIONS~~ BOUGHT DURING ~~LOW~~ (OFF-PEAK TIME) DEMAND PERIODS IS STORED OVERNITE AT THE RESIDENCES OR FACILITIES WITH THE POWER COMPENSATER ^{POWER} SUPPLEMENTER.

10/13/03

Very fast

→ THERE IS TODAY A HIGH DEMAND ~~WITH~~ TRANSMISSIONS DURING THE DAY CREATING A HIGH XMISSION GRID LOCK, THIS CONCEPT XMITTS POWER AT NIGHT PRIMARILY

FIG 3

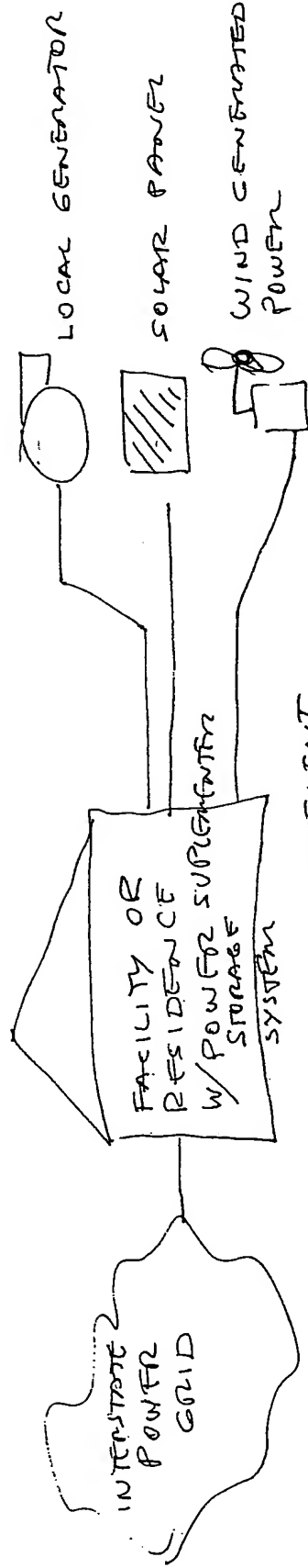


FIG 3.0

SECONDARY ENERGY SUPPLEMENT CONCEPT -

Power Supplement/Complement allows
 TO UTILIZE LOCAL ~~ELECTRICAL~~ ELECTRICAL POWER
 GENERATION TO complement the local energy
 STORAGE TO REDUCE AND OPTIMIZE POWER
 COSTS, ~~AND~~

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Fig 4.0 (revised)

NOTE: THE MAIN FEATURE OF THE CONCEPT IS THAT ALL POWER TRANSMISSIONS UNDER THIS CONCEPT WILL OCCUR AT NITE, BECAUSE OF STORAGE CAPABILITY OF "BATTERIES" AT HOUSES ALL TRANSMISSION WILL OCCUR AT NITE.

Revised
10/3/03

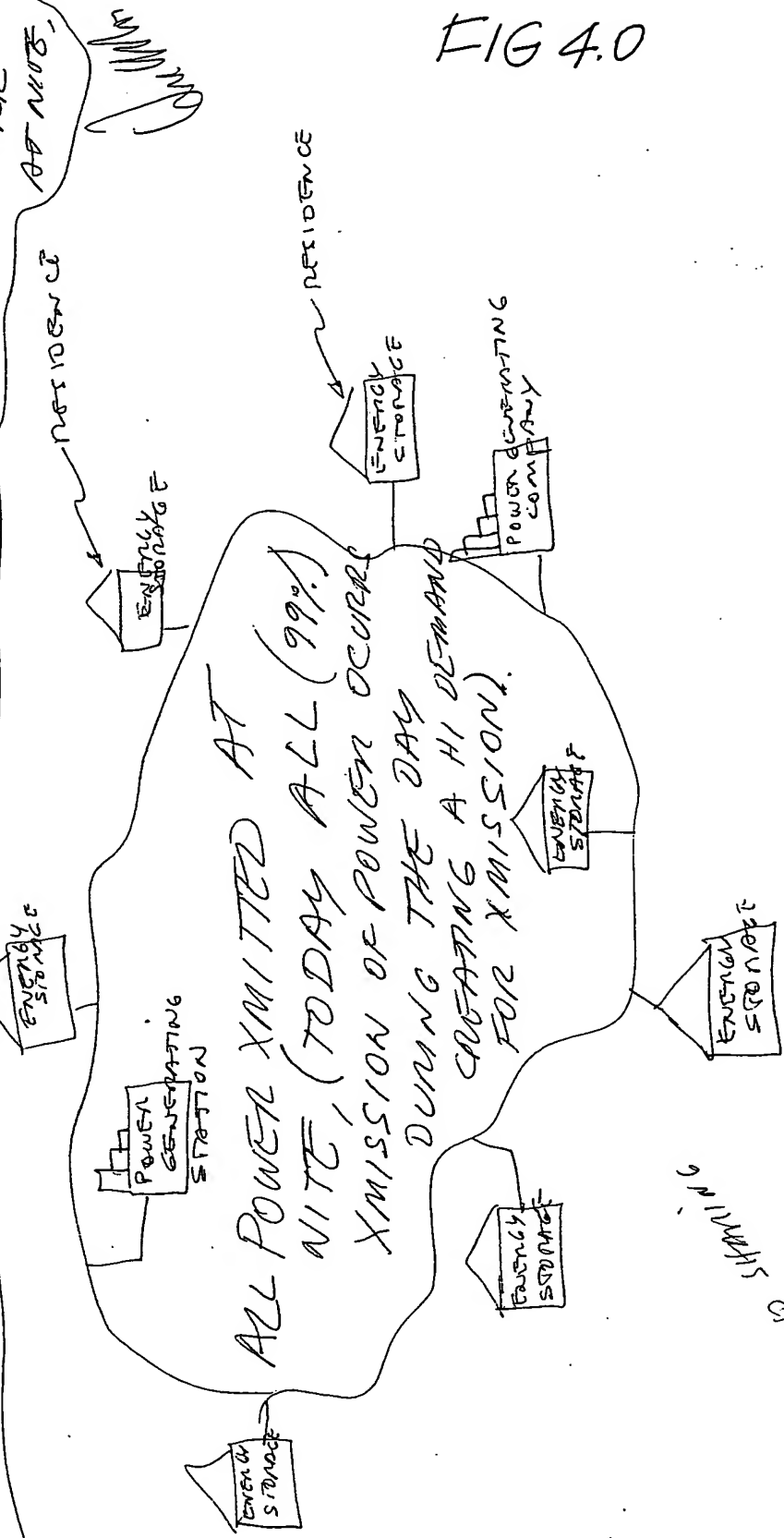


FIG 4.0

Energy Storage Concept -

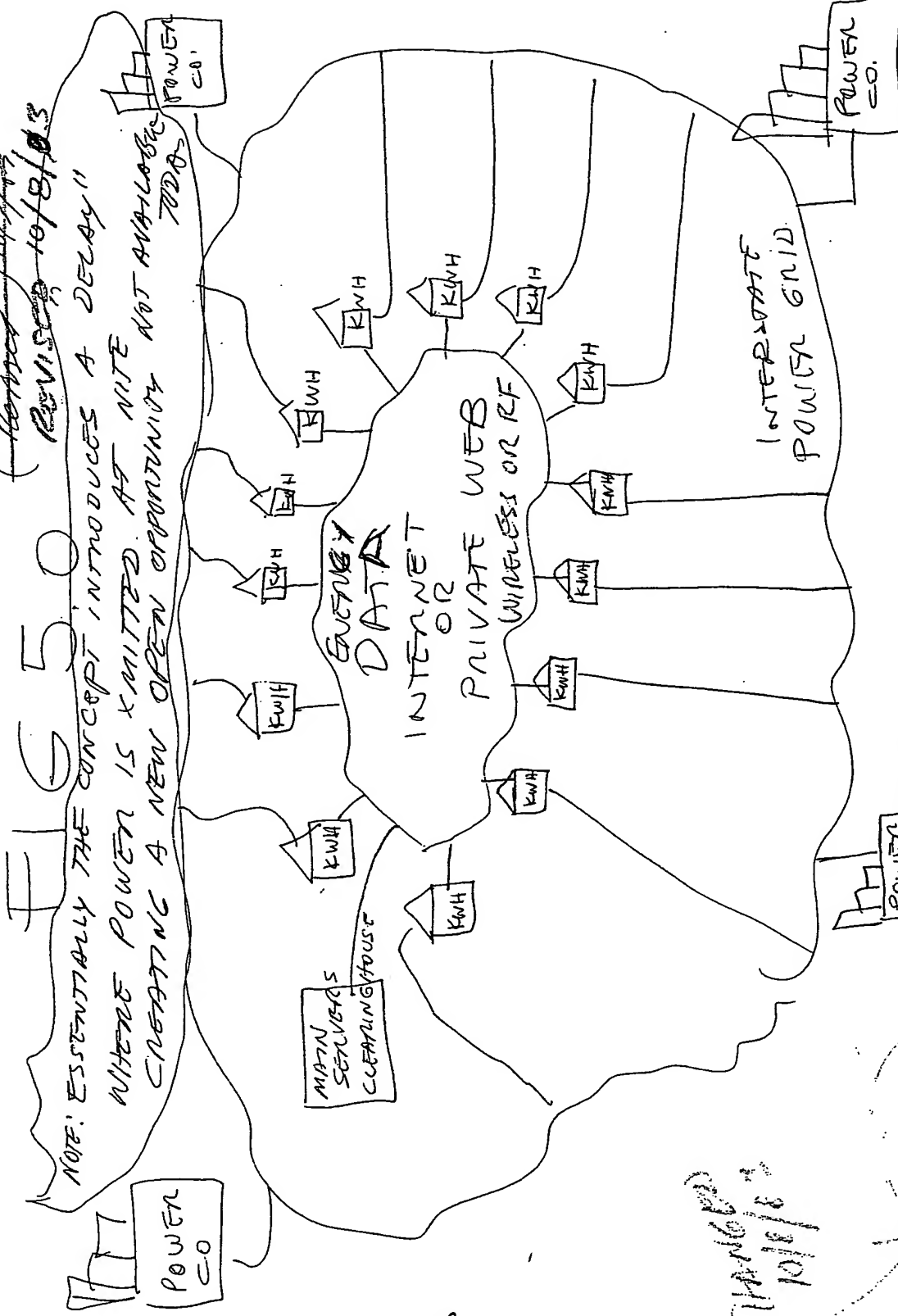
RESIDENCES OR FACILITIES WITH STORED ENERGY STORAGES PROVIDE POWER FOR THE RESIDENCE ITSELF AS WELL AS "SELL BACK" ~~STORAGE~~ STORED ENERGY TO THE POWER GENERATING COMPANY DURING "HI DEMAND" PEAK HOURS.

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FIG 5.0

(Revised 10/8/03)

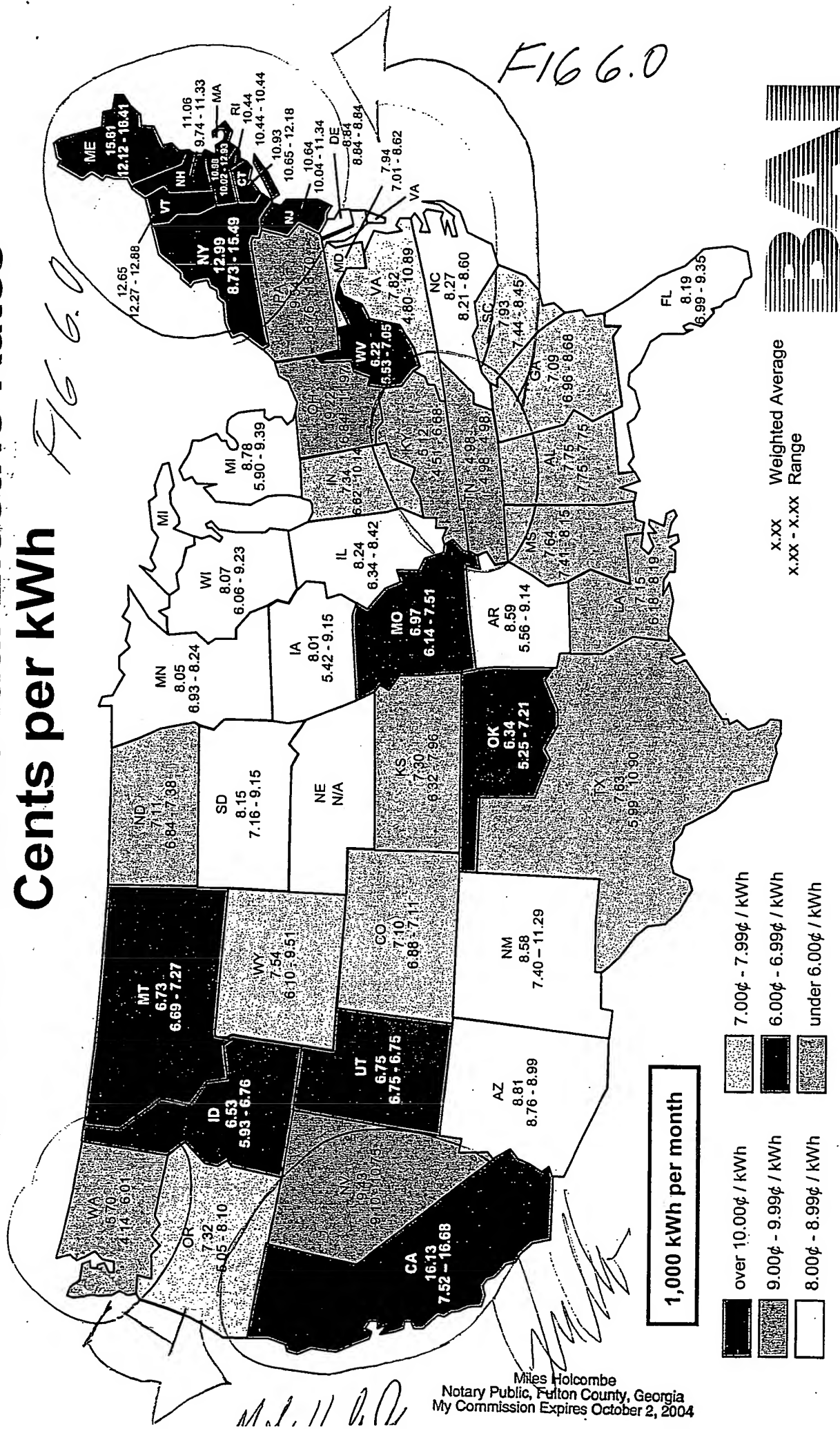


POWER GENERATING COMPANIES HAVE DIRECT ACCESS TO RESOURCES OR LOCATIONS OVER THE WEB AND CAN ASCERTAIN THE AGGREGATED AVAILABLE STORGE POWER IN A PARTICULAR AREA STATE OR COUNTRY AND ~~THE~~ DIRECTLY THW A DIRECT CONNECTION T POWER

TRADING STORGE POWER

10/16/03

Year 2002 Residential Electric Rates Cents per kWh



Source: Rates: Edison Electric Institute, Winter 2002 & Summer 2002
Weighting: Energy Information Administration/Electric Sales and Revenue,
Form EIA-826 Database, 2001 Residential Kilowatt-hour Sales



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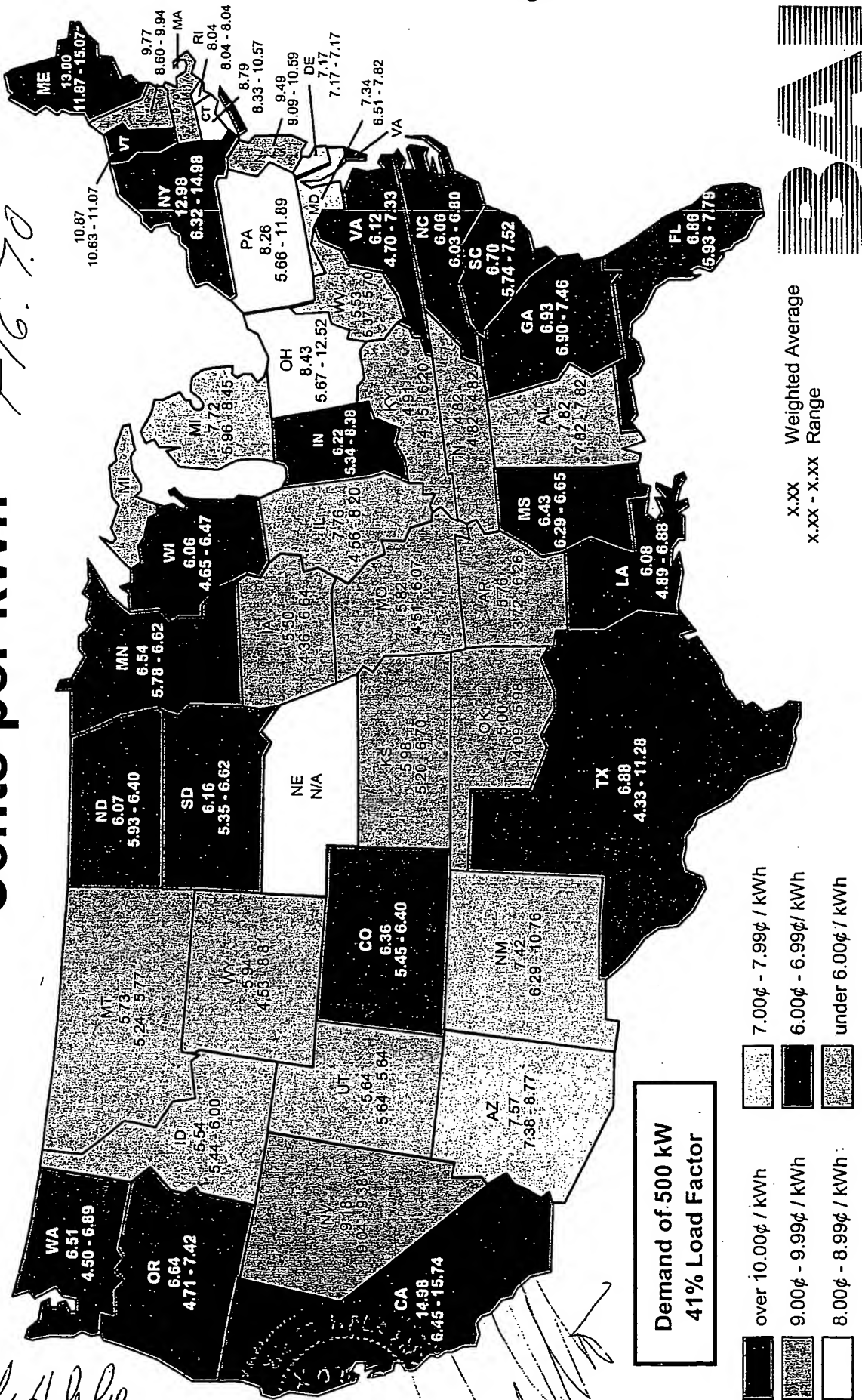
x.xx Weighted Average
x.xx - x.xx Range

March 2003

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Year 2002 Commercial Electricity Rates Cents per kWh

FIG. 7.0



Source: Rates: Edison Electric Institute, Winter 2002 & Summer 2002
Weighting: Energy Information Administration/Electric Sales and Revenue,
Form EIA-826 Database, 2001 Commercial Kilowatthour Sales

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REVISED 10/14/03
 REVISED 10/17/03
 REVISED 10/18/03

FIG. 8.0

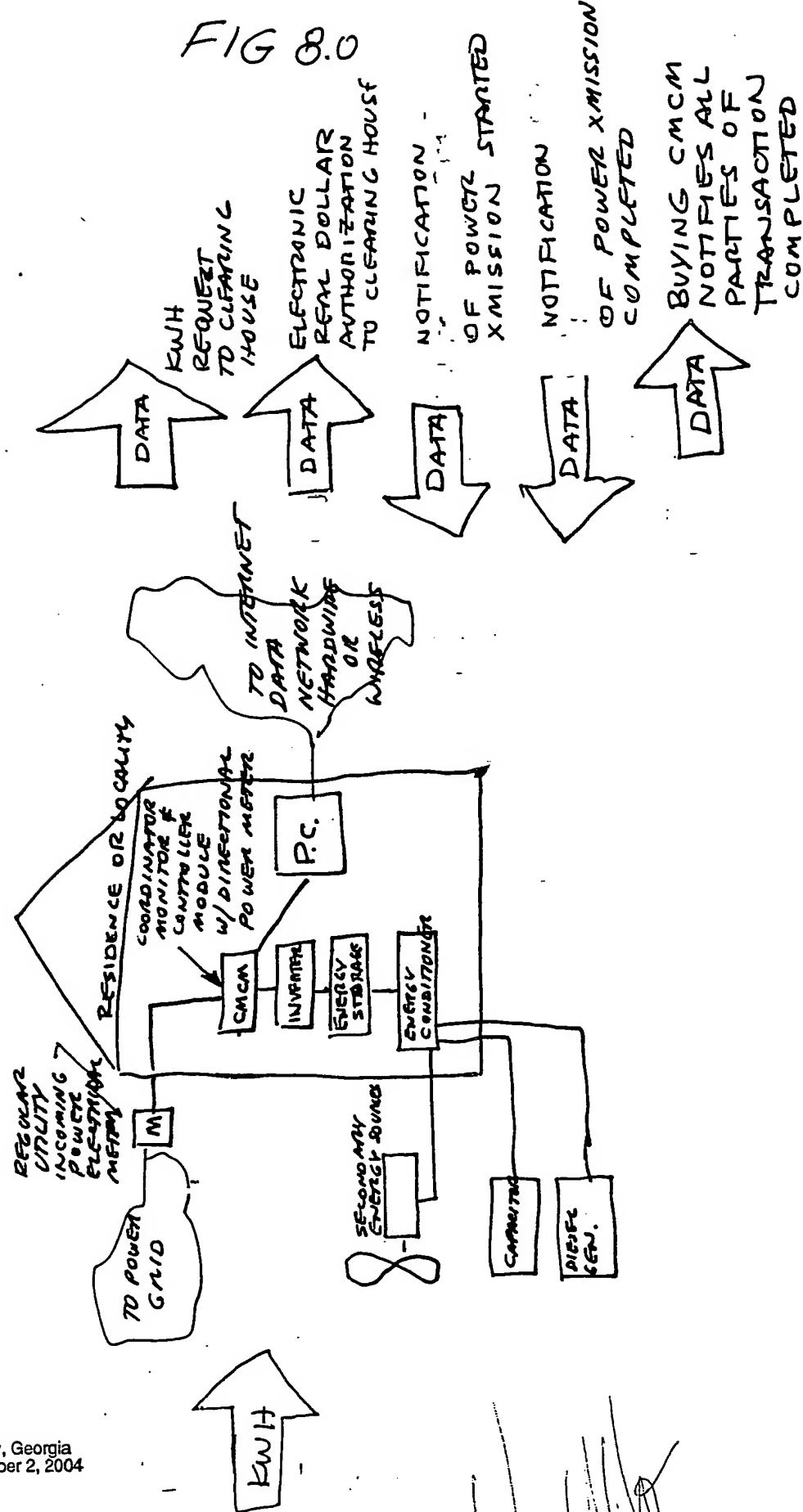


FIG. 8- THE HOMEOWNER AS A POWER BUYER

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FIG 9.0

Revised 10/7/03

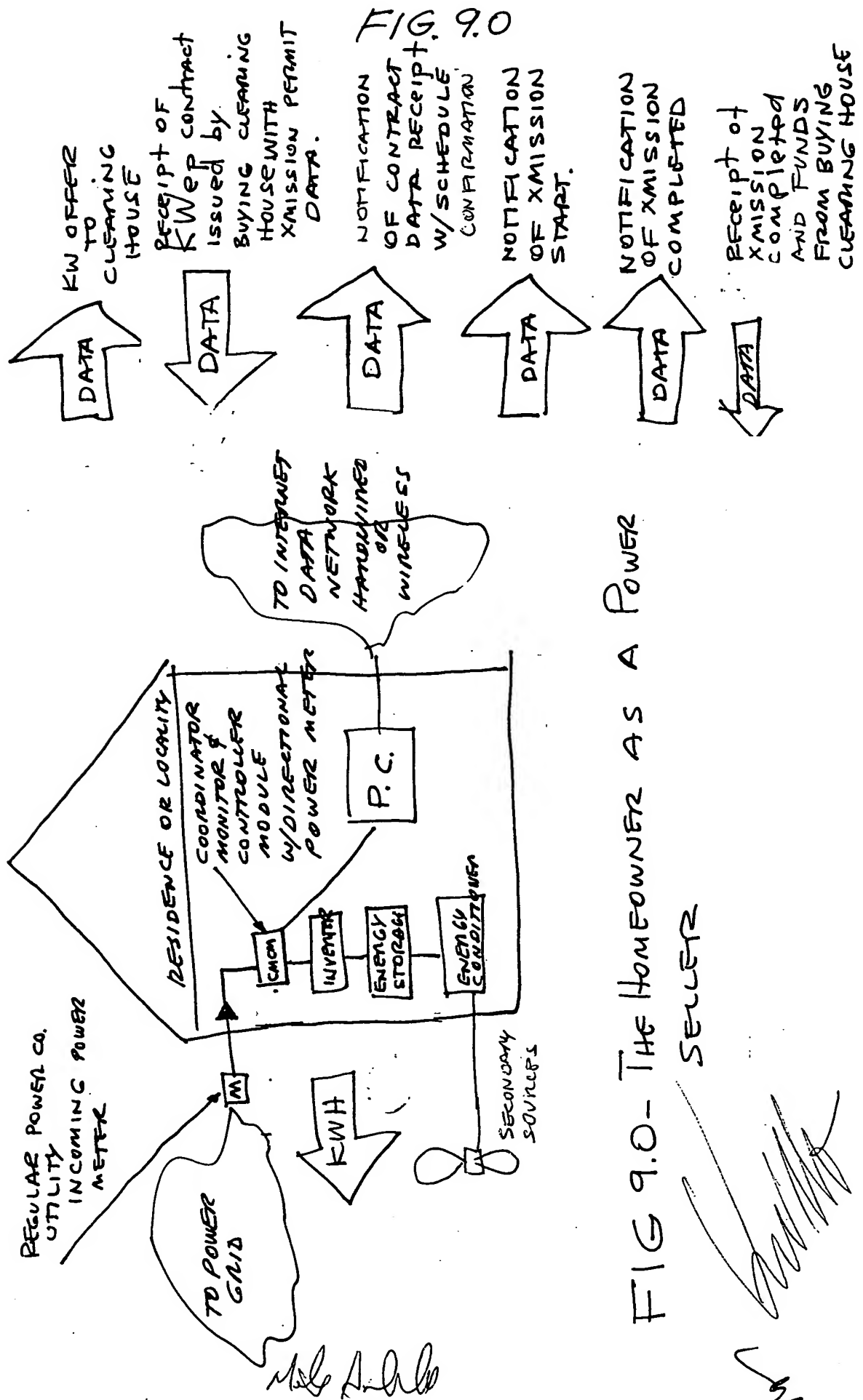


FIG 9.0- THE HOMEOWNER AS A POWER SELLER

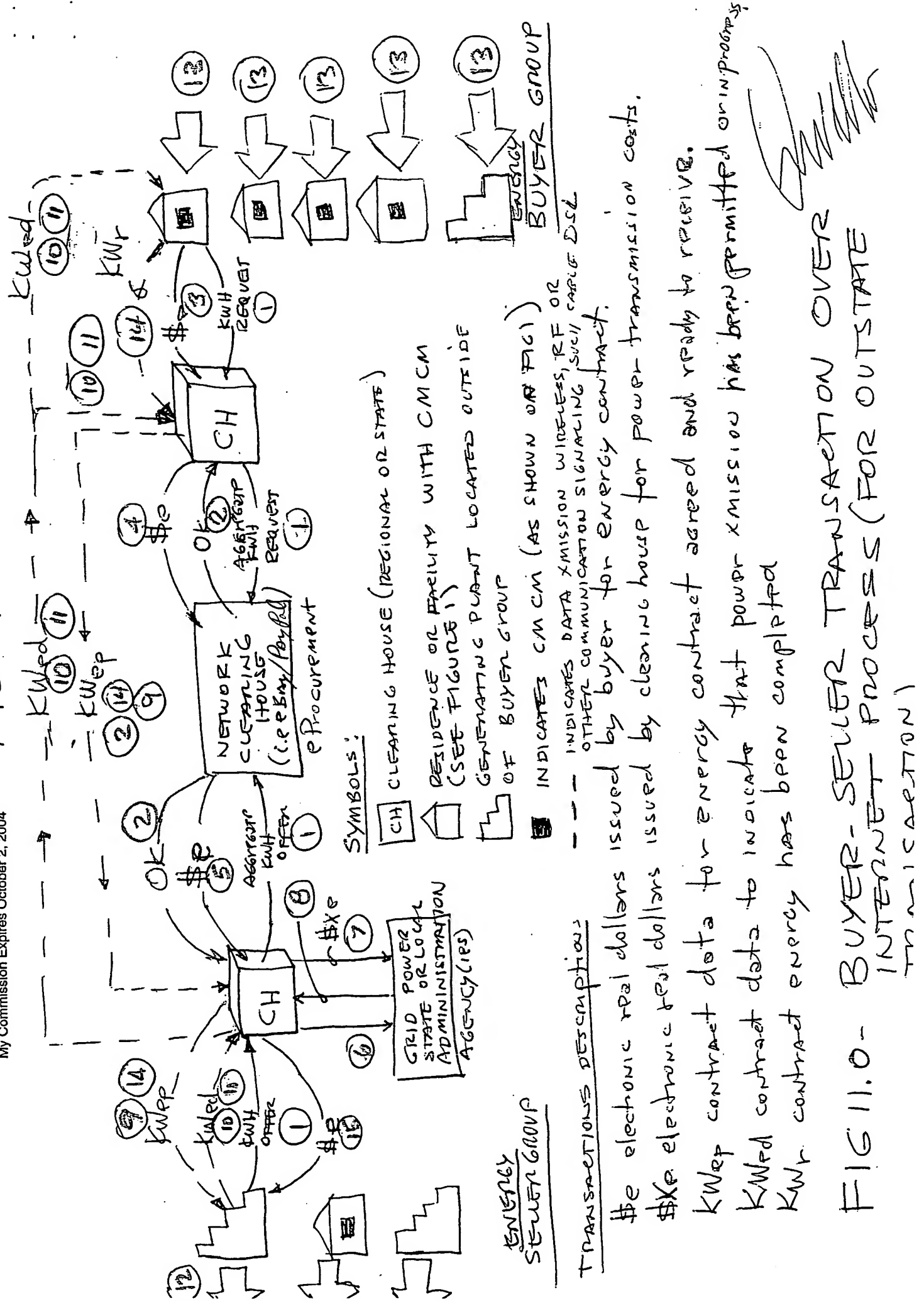


FIG 12.0 (REVISED 10/7/03)

COMMUNICATION PROTOCOL FOR XMISSION OF POWER

- ① REQUESTS OR OFFERS OF KWH BY SELLER OR BUYER TO RESPECTIVE CLEARING HOUSE
- ② CONTRACT IS AGREED BY SELLER AND BUYER - CONTRACT TERMS OF TRANSACTION ARE AGREED.
- ③ BUYER OR BUYERS PROVIDE PAYMENT OR PROMISED OF PAYMENT FOR TRANSACTION - POSSIBLY PREARRANGING WITH APPLICABLE CLEARING HOUSE.
- ④ ELECTRONIC DOLLARS FOR TRANSACTION ARE ISSUED BY BUYING CLEARING HOUSE TO NETWORK CLEARING HOUSE, (PAY-PAL, EPROCUREMENT)
- ⑤ ELECTRONIC DOLLARS ARE ISSUED TO SELLING CLEARING HOUSE
- ⑥ PERMIT FOR TRANSMISSION IS REQUESTED
- ⑦ PERMIT IS ISSUED
- ⑧ ELECTRONIC DOLLARS ARE ISSUED FOR XMISSION COSTS
- ⑨ BUYING CLEARANCE HOUSE NOTIFIES ALL PARTIES ELECTRONICALLY THAT TRANSACTION HAS BEEN PERMITTED AND SCHEDULE IS COMMUNICATED
- ⑩ ELECTRONIC SIGNAL TO ALL PARTIES THAT XMISSION ~~HAS~~ BEEN STARTED
- ⑪ ELECTRONIC TO ALL PARTIES THAT XMISSION IS IN PROGRESS
- ⑫ KW XMISSION IN PROGRESS TRAN POWER GRID
- ⑬ RECEIVING (BUYER) CATCH STARTS TO STORE ENERGY
- ⑭ ELECTRONIC SIGNAL THAT POWER XMISSION HAS BEEN COMPLETED.
- ⑮ SUPPLIER/SELLER IS PAID FOR TRANSACTION

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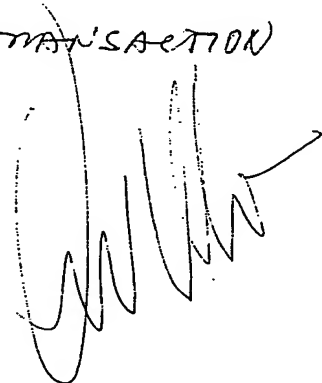


FIG 13.0

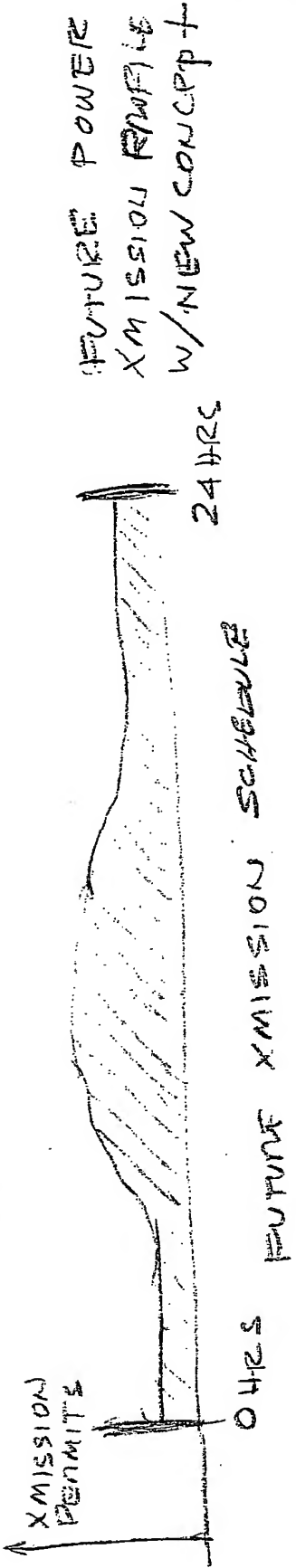
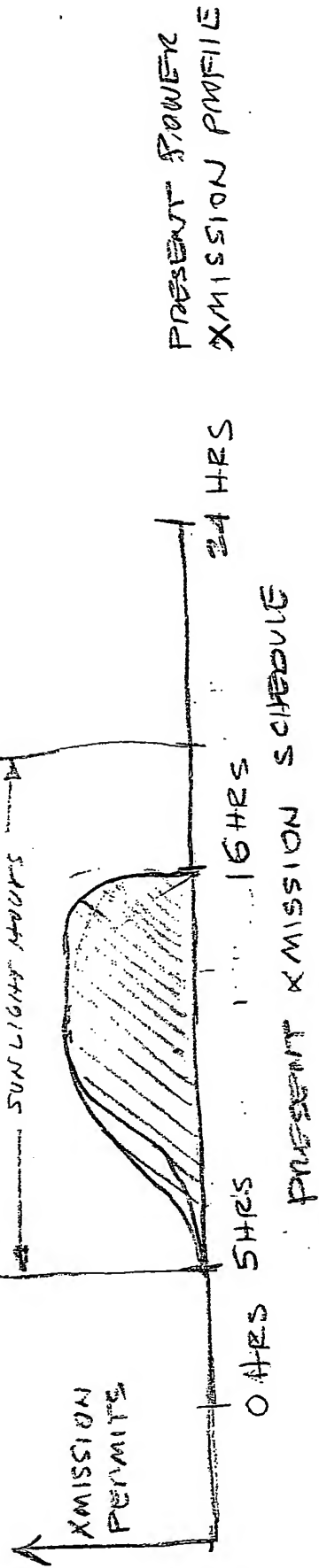
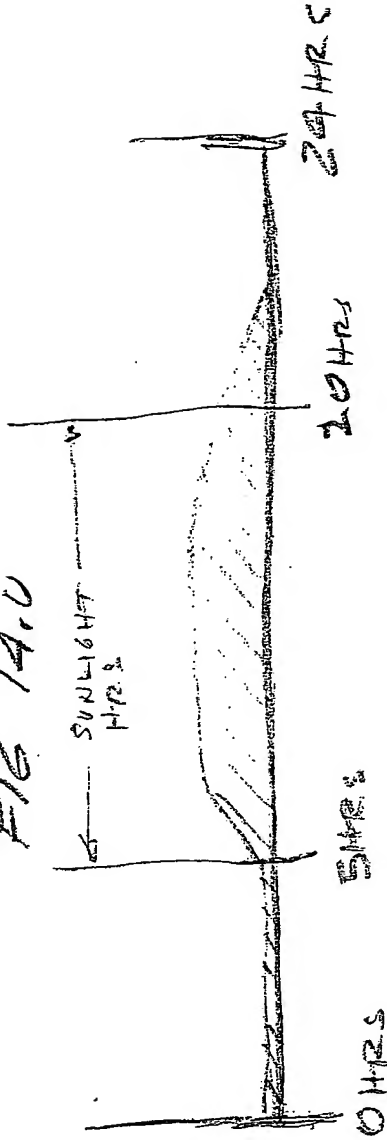


FIG. 13.0

- NOTES
- A - PERMISSION TO XMIT POWER ON GRID MUST BE POSTED WITH GRID XMISSION ADMINISTRATOR. IN ADVANCE AND BEFORE SCHEDULING PERMIT.
 - B - MOST XMISSION OCCUR WITHIN THE DAYLIGHT HOURS TODAY, CREATING A REAL CROWDED SITUATION, OF 11-12 HRS WINDOW.
 - C - BECAUSE OF "NEW CONCEPT", XMISSION IS RELAXED TO 24 HRS, MAKING GRID MORE USABLE.

13.0 - POWER XMISSION OPPORTUNITY

FIG 14.0

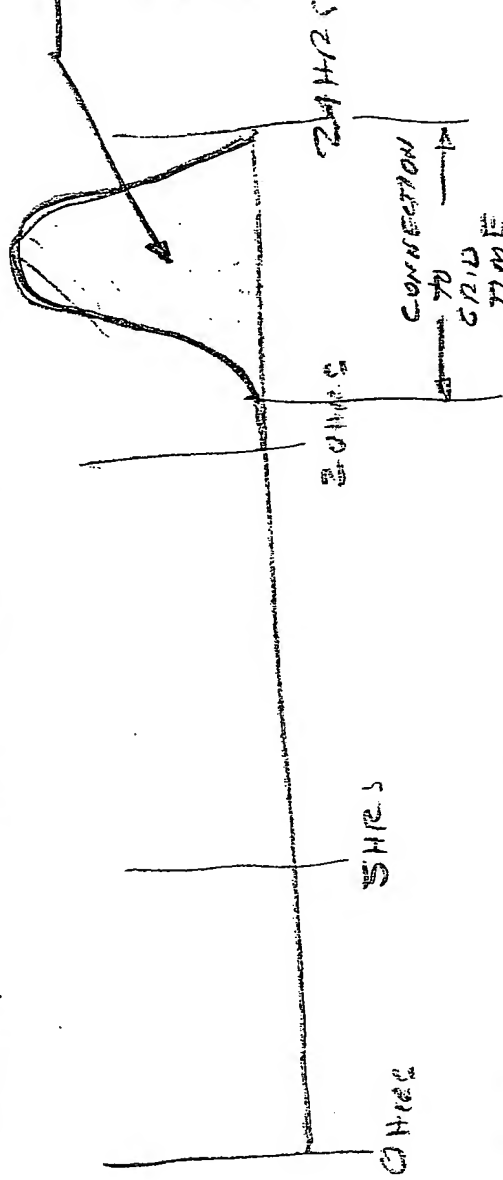


PRESENT HOME OWNER CONNECTION TIME TO

UTILITY ELECTRICAL "GRID" IS 24 HRS AND CONTINUOUS

CONNECTION TO UTILITY COMPANY IS A FUNCTION OF DESIRED LOAD AND BATTERIES.

FIG 14.0



FUTURE CONNECTION TO GRID TO OBTAIN POWER IS A FUNCTION OF DESIRED BATTERY CHARGE LOAD IN TERMS OF KWH FOR RESIDENCE WILL RUN ON BATTERIES FOR THE REST OF DAY.

14.0 - TYPICAL CONNECTION TO GRID TIME PROFILE

NOTE: BECAUSE EMISSION TIME AND USAGE ARE DIFFERENT A HUGE ADDITIONAL IS OPEN TO MAKE POWER GRID CAPACITY ALMOST DOUBLE

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KWH

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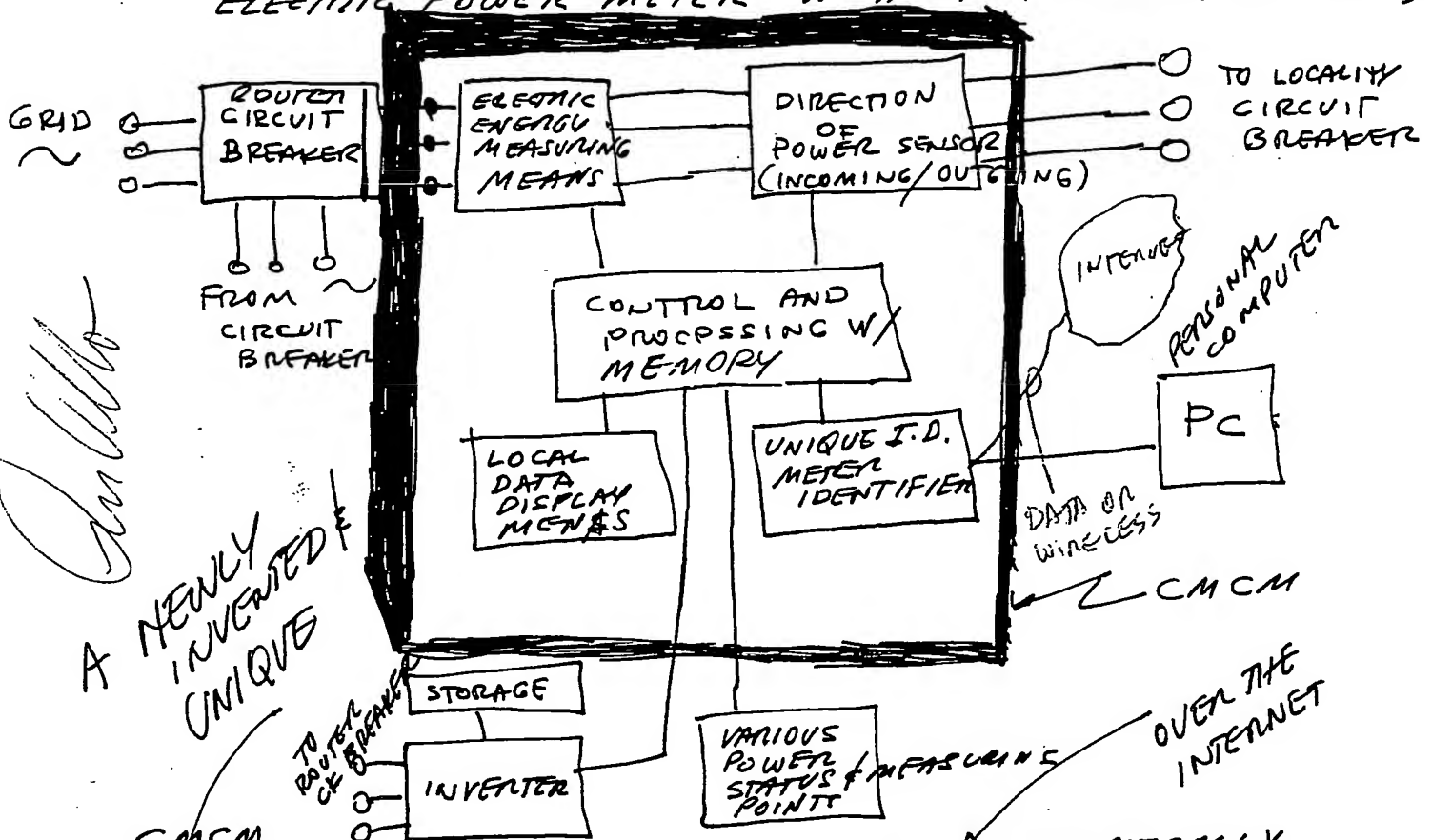
KWH

BIG
FEATURE

NEW INVENTED
ELECTRIC
METER W/ DIRECTION
OF POWER
COORDINATOR MONITOR & CONTROLLER MODULE (CMCM)

FIG. 15.0

ELECTRIC POWER METER WITH UNIQUE I.D. (SEE FIG. 1)



A NEWLY INVENTED & UNIQUE

CMCM

AN MONITORING DEVICE WHICH CAN MONITOR & AUTOMATICALLY THE QUANTITIES OF POWER, THE DIRECTION OF POWER (INCOMING OR OUTGOING) AND IT HAS A UNIQUE I.D. IDENTIFIER TO IDENTIFY ITSELF TO OTHER CMCM

UNITS OVER INTERNET
UNIT SHALL BE PROGRAMMED IN FLASH (UNERASEABLE),
UNIQUE IDENTIFIER FOR THE PURPOSES OF VERIFICATION,
AND XMISSION OF POWER WHENEVER COMMUNICATING
WITH OTHER CMCM. IT SHALL PROVIDE CERTIFIABLE
DATA ABOUT TRANSACTION SUCH AS I.D., AND
POWER DATA SUCH AS INCOMING OR OUTGOING
AS WELL AS QUANTITIES OF POWER RECEIVED OR
DELIVERED AS WELL AS XMISSION PERMIT AND
TRANSACTION NUMBER.

CONTROL UNIT SHALL BE ABLE TO MONITOR AMOUNTS OF
ELECTRICAL POWER NEEDED OR REQUIRED FROM TO
CLEANING HOUSE (SEE FIG. 11.0)

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Figure 16 CMCM Protocol

	Remotely Instructed	Local CMCM Controlled	Owner Local Manual Override	Using Locality/Utility Power	Charging Batteries	Utilizing Own Secondary Generation Sources	Selling Power to Local Grid	Buy Power from Local Grid
Fig 8 Power Buying from the Local Grid	Nitetime Daytime	Active Active	Available Available	Active Active	Active Active	Optional Optional	Active	Active
Fig 9 Power Selling to the Local Grid	Nitetime Daytime	Active Active	Available Available	Active Active	Active Active	Optional Optional	Active	Active
Fig 10A Power Buying from Remote Grid	Nitetime Daytime	Active Active	Available Available	Active Active	Active Active	Optional Optional	Active	Active
Fig 10B Power Selling to Local Grid	Nitetime Daytime	Active Active	Available Available	Active Active	Active Active	Optional Optional	Active	Active
Fig 10C Power Curtail/offer to LocalGrid	Nitetime Daytime DayTimeCurtailOn DayTimeCurtailSelling Power	Active Active Active Active	Available Available Available Available	Active Active Active Active	Active Active Active Active	Optional Optional Optional Optional	Active Active Active Active	Optional Optional Optional Optional

rev1.0

October 20th, 2003

Revision 5.0

APPARATUS AND BUSINESS METHOD FOR TRADING AND TRANSMITTING STORED ENERGY.

BACKGROUND OF THE INVENTION

Presently billions of KW of electric energy is transmitted daily across the US during everyday of the year and the "channels of transmission continue to get busier and busier to the point that "transmission of power" is almost at a grid lock condition. This is what it is commonly known as the "electrical power gridlock". Today hundreds of Electrical Companies as resellers of energy across the USA compete heavily everyday for transmission permits and battle to use of the limited time window of transmission for "transmission time " which is limited to the daylight hours.

The National Energy Policy has stated that this is one of the most critical energy problems facing the USA today, it is a fact that "the power grid" is nearly gridlocked and for that reason President George W. Bush has issued an Executive Order to expedite a solution to this problem and as part of his total energy plan. The electrical power grid today is just about totally maxed out in capacity and during the day, this restriction of time and capacity is happening primarily because with the present method a "transmitter ~~recipient~~ of energy must transmit exactly and simultaneously at the same time when the energy is used". Otherwise, billions of dollars would have to be appropriated and used to increase the "wire capacity" of the present system in order to allow for more capacity. In other words, under the present conditions electrical energy is transmitted from the originating point at the "exact same time that it will be consumed" to the consuming point and unless there is a way to utilize that energy instantaneously "at the exact time" the same power will have to be dissipated or wasted or will unbalance the "power grid", this is the problem "the power grid must be continuously balanced" to the exact electrical load balance, not too much and no too little power can be transmitted, it must be properly balanced exactly and continuously, this creates a "power grid-lock" and a demand for the same "transmission time ~~problem~~".

Today with the present system, the receiving agency must be ready to receive when the power is transmitted.

The subject matter of this invention deals with the marketing aspects of storing overnight large amounts of electrical energy at residences and other locations strategically in the US to for use in the "local grid" during the day.

The preferred means of storing electrical energy in the new patent application for new art is the one of using "state of the art" deep charge batteries 24VAC or 48VAC, these batteries are convenient in size and require almost no maintenance but primarily they are extremely safe unlike the methods depicted in Patents #6,522,031 which uses "high static

charge” capacitors which would require complex electronics to convert to 120VAC and not very friendly for a residence, and unlike #6,621,181 which is extremely designed for exclusively for “high voltage grids” as it operates in the “hi voltage 17,000 volts or much higher”.

This invention provides a solution to the problem of “transmission grid lock” by creating an opportunity for the way and methods and the time that power is transmitted today across the entire country. This invention solves that “same time transmission problem” by introducing a way to “un-phase the time window” for that energy which is transmitted to the time when the energy is used, this is done by “storing the energy” at the residences or small buildings.

This invention for all practical purposes “doubles the present transmission window” by allowing electrical energy to be transmitted to strategically “transport energy to thousands of locations across the US” overnight. This invention is a major solution to the “national power transmission gridlock problem” by storing billions of megawatts of electrical energy in strategic locations thru the US for later use and it also allows the doubling the allowable transmission time using the “night time for transmission” of the same energy.

So for the US government and the nation in general, this invention resolves one of the main problem facing the US today’s energy available at large metropolitan cities across the US and the transmission of the same. This invention makes the “power grid” twice more effective by allowing the “storage of billions of megawatts” at strategic locations thru the US to be used upon demand on a matter of minutes.

For the homeowner or the end user, this invention opens opportunities for buying power power remotely in bulk (“low cost energy states”) at much lower cost by having it transmitted overnight and have it stored in his or her own premises (“high cost energy state”) automatically for later use or for the purposes of reselling to the local grid at a higher price.

For the Local Power Companies this invention puts at their disposal millions of megawatts of energy to be used almost instantaneously when they get in trouble or for time when the demand is high.

For the Remote Power Producers and re-sellers, this invention opens an avenue to resell “power overnight” in large metropolitan areas (like New York, New Jersey, California, etc) creating a more competitive market for the electrical market.

The implementation of this invention will also create “thousands of new employment opportunities across the country for the installation and maintenance of this “apparatus”.

DESCRIPTION OF INVENTION/ ABSTRACT:

The apparatus and its method as shown on Figure 1 is an invention invented solely by Vic Villalobos, 2955 Summitop Court, Marietta, Georgia, 30066 a citizen of the United States of America to help remedy the high demand of electrical energy in certain metropolitan areas of the country and to alleviate the "electrical power grid transmission lock" problem. This invention covers an apparatus and method to optimize, coordinate for the transmission costs involved on the transmission of power from one "remote grid" location to another "local grid" location as well as the certification of receipt and paying for the Power received as well as the storage of same energy for later use.

The apparatus (CMCM) in Fig.1 and 15.0 primary function is the one of coordinating the different modes of the inverter, circuit breaker and the battery module used and depicted in Fig 1. The CMCM can be controlled remotely over Data Lines, for the purpose of security, the CMCM has a "call back feature" which only calls certain IP addresses only after being called and being programmed to use certain IP addresses.

It also provides with "data communication" with the internal home and the outside world by providing data about the different electrical devices. One of its functions is to measure the amount of "stored energy" as well the direction of the "electric power" as well as the quantities.

The CMCM automatically also identifies the user, certifies the amount of energy being received or transmitted by the home user. The unique feature of the newly invented power meter is that not only measures the quantity of energy being received or transmitted but also certifies the direction of power of being incoming or outgoing, this is totally unique. The CMCM provides a unique I.D. for the purposes of data transaction as a unique customer ID (CMCM ID) is burned in flash and it is different to every CMCM). This allows for the certification of the party (is) being involved in the transaction.

The apparatus also allows for secondary power sources to supplement and complement the utility power with or without the utility power being connected "online".

The secondary big feature of the invention is that the apparatus allows for a home to be remotely shed from the "power grid" for a period of time and primarily during the night allowing it to run on local battery (like during the day and charge storage at night); therefore, it will allow the home to be seamless isolated from the "grid" for the purposes of load curtailing or simply until a problem is solved and the power company is back on line again. This is a big feature in a "brown out" situation; the power company will not be burden with excessive load given a "brown out situation".

Another feature is that the invention allows the residence, small buildings or larger buildings to "run on batteries" or to run on secondary power sources seamlessly without interfering with the utility power or allowing the secondary sources (such as wind generators, diesel generators and other renewable sources) to complement the regular utility power.

The usefulness of this invention is the idea of charging batteries with remote low cost electrical power remotely obtained ("remote grid") to charge batteries and store as much as possible electrical locations as possible at night and to "make" that stored energy available the following day for the purposes of powering the "residence" or facility the following day during "peak electrical demand" period. Given the fact that power can be transmitted over the "power grid" from one state to the other, this invention will allow to charge the "battery" at night time with low cost power from one state and to "run" the recipient residence or facility the following day at another location or the use of multiple other sources.

Because the residence controller will report the amount of stored energy in a particular area to a "clearance house" and the clearinghouse will aggregate the "available" stored energy in a particular area, the concept will allow the utility companies to buy excess stored electrical energy from the "residences" in a matter of seconds.

The amount of stored energy would allow the "Local Power Company" to access remotely the amount of stored energy in thousands of residences and to command "thousands" of Kilowatts to be put into the "local Grid" as desired and as controlled by the power company remotely thru the CMCM.

PURPOSE:

The main purpose of the invention as shown on Figure 8 and 9 (attached) is to provide the home user with a method to have control of his/her destiny as far as the cost of energy in his house by being able to "buy low cost energy during the night" and "sell it at a higher price" during high demand time in his area, also secondary method to power the average home or small locality by simultaneously utilizing a mix of "self produced" secondary power A/C or D/C supply sources (wind electrical power generators, fuel power auxiliary generator, batteries, capacitors, etc, etc), or any other methods available to power the home in the future at the same time without interfering with the main power supplied by the utility company and at the same time store as much electric energy during "off-peak night hours" in his residence to lower the cost of energy for his/her house.

Another purpose of the invention is to allow a home to be remotely shed from the "power grid" for a period of time allowing it to run on local battery; therefore, it will allow the home to be seamlessly isolated from the "grid" until a problem is solved and the power company is back on line again. The invention will allow great number of "residences" or the localities to store energy for later resale to the power companies upon demand. As far as comfort, the "homeowner" or resident should have a seamless and totally transparent transfer from electric utility to "stored power and vice versa, this is the unique features of the invention.

By the use and application of the methods included in this invention, the homeowner will be able to run "on batteries during the day" and "charge batteries at night". The unique business opportunity is that the homeowner himself or "a regional or local clearing house will be able to aggregate and therefore, negotiate" a better rate for a Group Buyer (several

residences in that area) for power delivered during the night. The idea of only connecting to the Power for the night use can give the homeowner or the "clearing house" the leverage to buy power rates which are more favorably.

Once a need of power is establish, the CMCM will automatically coordinate as well as well as certify the receipt of the power by the homeowner as well as being able to automatically "reconcile" and coordinate payments for the power received, this is part of the uniqueness of the invention. The CMCM and the clearinghouse will automatically handle this for the homeowner.

This feature will also allow reducing or supplementing the KW demand available in an particular area during "a hard start up", the generating company in trouble will be able to buy power at a minutes notice by accessing thru a clearing house the hundreds of remote residences that may have extra capacity in electrical storage.

This extra stored power can then be "sold" to the utility and arranged to be transmitted electronically in a matter of minutes (very unique) and all handle thru the CMCM. Because the CMCM will be able to transmit information to the "customer in the grid" of the amount of available stored data, it will be able to "have access to the power stored in thousands and hundreds of residences with storage bulk power " within minutes. This is a unique feature never allowed before. It also allows for remotely shedding the "home load" from the "power grid" (by using power at night only) in order to reduce the load during hi demand hours.

The other mayor feature is that the CMCM will be able to handle all money or funds of such transaction automatically for the "home owner". In a matter of minutes the "transaction" can be contracted, permitted for transmission and delivered and paid for. This is a major feature.

Essentially stored energy in thousands of homes with the CMCM form as an aggregate of large kw power stored that could be used as "emergency power" to reduce and freed the KW demand required for the utility company during a hard start up situation (by the power company or the end user). It also allows for completely isolating the "home load" from the "power grid" during the day in order to reduce the load during hi demand hours; therefore, reducing the hi kW demand during high peak hours for the power company.

With the advent of new ways of generating power at the home level (most of them are Direct Current-Free energy devices), this invention will also allow for the use and mix of a multiplicity of sources with the electric powering system for a home and the use of "low cost electricity" to charge the batteries over the grid. The other benefit of the invention is that provides a method to transition and interface into new ways to power the home in the future.

The invention also allows the user to by-pass of power to control loads on and off in the house, the invention allows the end user to choose for certain loads to remain connected

to the utility power directly while others to remain in the circuit for periods of high demand.

Definitely, the main star of the invention is the CMCM because it maintains, coordinates and keeps tracks of funds of all transaction as well as certifies the direction of power energy that being incoming or outgoing. This is the main feature of the invention.

Claims.

- 1- What is being claimed is an apparatus that allows for "storing low cost" electrical energy at multiple locations like residences, business domiciles, etc, etc, and make that energy available to the utility generating companies at a later time when the power when there is a higher demand for power.
- 2- What is claimed is an apparatus that collects energy from the "utility grid" during low cost demand periods like nighttime to be used (sold back) at a later time.
- 3- What is claimed is an apparatus that allows the large utilization and aggregation of local power "generated locally" such as diesel or gas electrical generators, solar collectors, etc, etc, for storage at multiple locations for later use when the power is more needed and therefore more expensive.
- 4- What it is being claimed is an apparatus that allows a single residence or separate floors in a building to run during the day on "battery power" to reduce and optimized the cost of electricity for residences.
- 5- What is being claimed is "continuous" power supply to power the residence without blinking interruptions and being isolated from electrical storms "blinks".
- 6- What is being claimed is an apparatus that provides a perfect method to protect "computers" or other delicate devices by using full sine wave inverters powered by batteries eliminating a direct connection with the "power grid".
- 7- What is being claimed is a business method to accumulate and store energy for the sell and buying of electrical energy throughout the country in multiple locations to capitalize on the selling of such energy "over electrical grid" to the utility companies.
- 8- What is being claimed is a business method to capitalize on a multilocation system for storing energy for the sell and buying of electrical energy of such energy throughout the country in multiple locations to capitalize on the selling of such energy "over electrical grid" to the utility companies.
- 9- What is being claimed is a method of storing energy in hundreds of locations throughout the country (during low demand hours) to remedy and help the lack of power during hi-peak hours by being able to "feed" that stored energy back into "the power grid" during a black-out or emergency.
- 10- What is being claimed is a method of storing electric power in bulk for the re-sell when the time is most profitable for the "residence owner" in the form of a national conglomerate energy clearing house.
- 11- What is being claimed is a method to monitor the aggregation of power in the hundreds of locations with the supplementer apparatus.

- 12- What is being claimed is an apparatus that allows to supplement the "stored energy in a residence " with secondary energy sources such as electrical energy generated from wind sources, diesel generators, etc.
- 13- What is being claimed is an apparatus that allows to "infuse" secondary sources of power such as wind generated power, solar power, etc, etc into the "electrical grid of power" by allowing the power companies to buy that power back into their system.
- 14- What is being claimed is an apparatus that allows to report to outside agencies over the internet the amount of "energy stored and available" instantaneously over the Web as well as the amount of secondary sources power available to the utility companies for then "to buy" that power from the different "residence" which can automatically become power sellers.
- 15- What is being claimed is an automatic method by which "sellers"(residence owners) of power can set the parameters and pricing to sell power to the utility companies automatically.
- 16- What is being claimed is an apparatus by which "utility power companies" can "buy" power from separate "localities" automatically thru the Internet data connection.
- 17- What is being claimed is an apparatus that allows the automatic bidding of power for "sellers" as well as "buyers" over the Internet by allowing the "apparatus controller"-Coordinator Monitor and Controller Module(CMCM).(see Fig 1- device I).
- 18- What is being claimed is an apparatus that allows the residence local user to make an PC interface to determine the status of the "electrical power usage" for his or her residence as well as archive data usage or transaction "selling and buying" reconciliation with the seller and buyers of power.
- 19- What is being claimed is a "business method" to set up the common residence dweller to become "a power supplier" as well as power provider to the "grid".
- 20- What is being claimed is an apparatus that allows "automatic transaction" selling and buying energy over the Web.
- 21- What is being claimed is an apparatus and a business method to inter-connect large number of power providers to have a representative clearing house for the sell and buying of energy in bulk.

CLAIM GROUPING

CLAIM RELATED TO THE COORDINATOR MONITOR AND CONTROLLER MODULE(CMCM)

- 22- What is being claimed is a device called Coordinator Monitor and Controller Module(CMCM) which is the main device that meters the direction of the energy(in-bound or out-bound) as well as certifies the quantity of power being transmitted in or out.
- 23- What is being claimed is a device called the Coordinator Monitor and Controller Module(CMCM) device that certifies its unique ID that Power Transmission

Data is being transmitted to or from the correct locations eliminating "fake" orders or "fake data".

- 24- What is being claimed is a device called the Coordinator Monitor and Controller Module(CMCM) device that coordinates and signals from beginning to end the transmission of power from point A to Point B.
- 25- What is being claimed is a device called the Coordinator Monitor and Controller Module(CMCM) device that is able to measure as well as transmit data regarding the "amount of data stored" in a particular residence or facility.
- 26- What is being claimed is a device called the Coordinator Monitor and Controller Module(CMCM) device that monitors the amount of storage energy that can be sold by the owner.
- 27- What is being claimed is an automatic method to coordinate the transmission of energy to multiple locations simultaneously from a Provider or Seller using the CMCM..
- 28- What is being claimed is a system and method that coordinates the delivery of electrical power across the power grid or to the local grid..
- 29- What is being claimed is an automatic method to request the transmission of energy to multiple locations within minutes of such power required by a buyer local company in distress.
- 30- What is being claimed is an automatic method to coordinate and document the funds associate with transmission of energy to multiple locations whether energy is being sold or bought.

**METHOD RELATED TO THE OWNER AS POWER BUYER OF LOCAL POWER
BY USING POWER AT NITE ONLY(Fig 10A) CLAIMS.**

- 31- A method by which the home or residence or business domicile is outfitted with a properly sized energy storage, inverter and the CMCM as described in Fig. 1.
- 32- A method which exhibits a battery storage enough energy capacity to run during the day and therefore being able to disconnect from the power Company during the day.
- 33- A method by which the energy storage is re-charged during the night.
- 34- A method which includes the owner being able to directly or indirectly to request or negotiate better rates from the local utility by using night power rates only.
- 35- A method by which the stored power and the rate of usage is monitored and controlled by the CMCM.
- 36- A method that allows the collection of related funds electronically as per Fig 11.0. for the energy transaction.

- 37- A method , which allows the collection aggregate group “stored capacity” and the collection of related funds electronically as per Fig 11.0. for the energy transaction.
- 38- A method, which allows for a clearing house to negotiate the business aspects and the collection of funds for the “owners group”.

METHOD RELATED TO THE OWNER AS POWER SELLER TO THE LOCAL POWER(Fig 10B) CLAIMS.

- 39- A method by which the home or residence or business domicile is outfitted with a properly sized energy storage, an inverter as well as extra energy storage for the purposes of trading to the local power company whenever is needed and the CMCM as described in Fig.1 .
- 40- A method which exhibits a battery storage enough energy capacity to run during the day and therefore being able to disconnect from the power Company during the day.
- 41- A method, which exhibits extra battery storage capacity to sell the extra capacity to the local power grid.
- 42- A method by which the energy storage is re-charged during the night for both running the residence.
- 43- A method by which the extra energy storage is re-charged during the night for selling to the local power company.
- 44- A method which includes the owner is able to directly or indirectly to request or negotiate better rates from the utility by using night power rates only.
- 45- A method by which the stored power and the rate of usage is monitored and controlled by the CMCM.
- 46- A method by which the additional stored power to sell is monitored and controlled by the CMCM.
- 47- A method , which allows the collection aggregate group “stored capacity” and the collection of related funds electronically as per Fig 11.0. for the energy transaction
- 48- A method, which allows for a clearing house for the purposes of “aggregating” the energy needs for a number of owners..
- 49- A method, which allows for a clearing house to negotiate the business aspects and the collection of funds for the “owners group”.

METHOD RELATED TO THE OWNER AS POWER CURTAILER TO THE LOCAL POWER(Fig 10C) CLAIMS.

- 50- A method by which the home or residence or business domicile is outfitted with a properly sized energy storage, an inverter as well as extra energy storage for the purposes of trading to the local power company whenever is needed and the CMCM as described in Fig.1 .

- 51- A method which exhibits a battery storage enough energy capacity to run during the day and therefore being able to disconnect from the power Company upon receiving a data signal from the Power Company.
- 52- A method, which exhibits extra battery storage capacity to sell the extra capacity to the local power grid if so desired by the owner.
- 53- A method by which the energy storage is re-charged whenever connected to the utility power.
- 54- A method which the Power Company remotely can position the CMCM to control the mode of operation of the residence electrical system remotely thru data transmission thru the Internet or Radio Transmission (RF) or other means of transmission.
- 55- A method, which the aggregate curtailed power of several residences can be sold or exchanged for power credits with the local power company.
- 56- A method by which the stored power and the rate of usage is monitored and controlled by the CMCM.
- 57- A method by which the additional stored power to sell is monitored and controlled by the CMCM.
- 58- A method by which the CMCM advises electronically and automatically the Power Company of the remaining stored capacity.
- 59- A method, which allows the collection aggregate group "stored capacity" and the collection of related funds electronically as per Fig 11.0. for the energy transaction.
- 60- A method, which allows for a clearing house to negotiate the business aspects and the collection of funds for the "owners group".

METHOD RELATED TO THE OWNER AS POWER BUYER TO REMOTE GRID POWER(Fig 8) CLAIMS.

- 61- A method by which the home or residence or business domicile is outfitted with a properly sized energy storage, inverter as well as extra energy storage for the purposes of trading to the local power company whenever is needed and the CMCM as described in Fig.1 .
- 62- A method which exhibits a battery storage enough energy capacity to run during the day and therefore being able to disconnect from the power Company during the day.
- 63- A method, which exhibits extra battery storage capacity to sell the extra capacity to the local power grid.
- 64- A method by which the energy storage is re-charged during the night for both running the residence.

- 65- A method by which the extra energy storage is re-charged during the night for selling to the local power company.
- 66- A method by which the owner has the "option" to go to multiple power companies across the power grid suppliers to negotiate a better night rate; therefore, controlling his or her rate to be paid for power.
- 67- A method by which the stored power and the rate of usage is monitored and controlled by the CMCM.
- 68- A method by which the additional stored power to sell is monitored and controlled by the CMCM.
- 69- A method , which allows the collection of, related funds electronically as per Fig 11.0. for the energy transaction.
- 70- A method, which allows for a clearing house for the purposes of "aggregating" the energy needs for a number of owners.
- 71- A method, which allows for a clearing house to negotiate the business aspects and the collection of funds for the "owners group".

METHOD RELATED TO THE OWNER AS POWER SELLER TO REMOTE POWER GRIDS (Fig 9) CLAIMS.

- 72- A method by which the home or residence or business domicile is outfitted with a properly sized energy storage, inverter as well as extra energy storage for the purposes of trading to the local power company whenever is needed and the CMCM as described in Fig.1 .
- 73- A method which exhibits a battery storage with energy capacity large enough to run during the day and therefore being able to disconnect from the power Company during the day.
- 74- A method, which exhibits extra battery storage capacity for the purposes to sell the extra capacity to the local power grid.
- 75- A method by which all energy storage is re-charged during the night for both running the residence as well as extra capacity desired to sell..
- 76- A method by which the extra energy storage is re-charged during the night for selling to the local power company.
- 77- A method by which the owner has the "option" to go to multiple power companies across the power grid suppliers to negotiate a better night rate; therefore, controlling his or her rate to be paid for power.
- 78- A method by which the owner has the "option" to sell stored power to power companies across the power grid suppliers.
- 79- A method by which the stored power and the rate of usage is monitored and controlled by the CMCM.
- 80- A method by which the additional stored power to sell is monitored and controlled by the CMCM.
- 81- A method , which allows the collection of, related funds electronically as per Fig 11.0. for the energy transaction.

- 82- A method, which allows for a clearing house for the purposes of "aggregating" the energy needs for a number of owners.
- 83- A method, which allows for a clearing house to negotiate the business aspects and the collection of funds for the "owners group".

METHOD RELATED TO THE OWNER AS POWER BUYER-SELLER POWER UTILIZATION OF THE ELECTRICAL POWER GRID FOR TRANSMISSION OF POWER(Fig 11) CLAIMS.

- 84- A method of storing and power transmission by which the "transmission power grid lines" are used at night time to transmit power increasing the "transmission capacity of the same lines" which is today primarily used during the day only today.

GENERIC CLAIMS

- 85- A method by which the residence is powered by the utility and or stored energy and vice versa where such transfer occurs seamlessly and totally transparent.

END OF CLAIMS..